

National Aeronautics and Space Administration

Headquarters

Washington, DC 20546-0001



March 7, 2012

Reply to Attn of: Office of the Chief Engineer

TO: Officials-in-Charge of Headquarters Offices
Directors, NASA Centers

FROM: Chief Engineer
Chief Safety and Mission Assurance
Chief Information Officer

SUBJECT: Call for Nominations for the 19th Annual NASA Software of the Year
(SOY) Award

As sponsors for the 19th Annual NASA SOY Award, we are pleased to announce the call for nominations. This prestigious award is designed to give recognition to developers of exceptional software created for or by NASA and owned by NASA. Every NASA Center and Facility is cordially invited to participate in this competition. The award includes the NASA Software Medal, Inventions and Contributions Board (ICB) certificate(s), and monetary compensation.

The NASA ICB website (<http://www.nasa.gov/offices/oc/ice/index.html>) contains information about the yearly competitions (<http://www.nasa.gov/offices/oc/ice/reqs.html>). The enclosure contains eligibility information and describes the selection process. Nomination packages are due to the ICB staff by close of business May 14, 2012. The competition for the 2012 SOY Award will be held June 20, 2012, at NASA Headquarters via onsite presentations and presentations from remote sites.

Excellence in software is vital to the Agency's leadership role in developing aeronautics and space technologies and transferring them to government and industry. The SOY Award competition allows us to recognize and appreciate the NASA team members that set high standards for significant software that is creative, usable, transferable, and possesses inherent quality. Please join us in fully supporting this year's competition.

A handwritten signature in blue ink, appearing to read "m. ryschkewitsch".

Michael G. Ryschkewitsch

A handwritten signature in blue ink, appearing to read "Terrance W. Wilcutt".

Terrance W. Wilcutt

A handwritten signature in blue ink, appearing to read "Linda Y. Cureton".

Linda Y. Cureton

Enclosure

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Plum Brook Station/Mr. Stringer

Wallops Flight Facility/Mr. Wrobel

White Sands Test Facility/Mr. Benz

Eligibility

NASA is looking for innovative **software** itself, rather than projects or products that use routine software. Software techniques, methods, languages, and functions are advancing and the applications of these advancements are allowing NASA to do more than it could ever have done before. The NASA Software of the Year (SOY) Award is about finding and rewarding these advances. It is important that the software not only be technologically advanced and of high quality, but can also demonstrate that safety and reliability have been applied as required to make the software product(s) robust and safe to operate per relative NASA standards and directives available at <http://standards.nasa.gov/> and http://nodis3.gsfc.nasa.gov/main_lib.cfm respectively. The competition is open to author(s) of outstanding scientific and technical software which provides documentation it has:

- (1) been officially released by the project within the last 3 years. Note: Software may only be considered officially released after all experimental phases have been successfully completed to the satisfaction of the customer;
- (2) a current Technology Readiness Level (TRL) of 7 or higher;
- (3) a NASA intellectual property interest;
- (4) been supported, adopted, sponsored, or used by NASA;
- (5) made a significant scientific or technical contribution to the NASA mission;
- (6) is in a NASA Center's Software Inventory
- (7) been reviewed by the local NASA Safety and Mission Assurance organization regarding:
 - a. Software classification as defined by [NPR 7150.2A](#), Appendix E.
 - b. Safety criticality based on the Software Assurance Assessment as described in [NASA-STD-8739.8](#), Appendix A.
 - c. Software release status.
 - d. Software Engineering processes followed for development and acceptance based on a compliance matrix against applicable Center or Agency software requirements as described in [NPR 7150.2A](#), Appendix D.
 - e. If classified as safety critical, include the compliance matrix as described in [NASA-STD 8719.13](#) Appendix B, section 6.
- (8) The designated Center Engineering Technical Authority must sign off on the submitted software's compliance matrix against NASA's Software Engineering Requirements (i.e. approval of candidate's software compliance matrix against applicable NPR 7150.2A requirements).
- (9) demonstrated compliance with NASA security procedures per [NASA Policy Directive 2810](#), [NASA Information Security Policy](#).
- (10) demonstrated compliance to [Section 508 of the Rehabilitation Act of 1973](#), as amended 29 U.S.C. § 794 (d).

NASA Centers, NASA Facilities (e.g., Independent Verification and Validation Facility, Wallops Flight Facility, White Sands Test Facility, Goddard Institute for Space Studies, Plum Brook Station), contractors, and supporting universities may participate.

Entries

Center Awards Liaison Officers (ALOs) shall submit entry packages electronically via the NASA Technology Transfer System (NTTS) by COB May 14, 2012, and include the documentation listed in Table A. A scanned copy of the NASA Form 1329 Section II must also be submitted through the ALO, which shows the signatures of the official NASA technical management reviewers. The entry should be supplemented by evidence, such as letters from software users demonstrating the software's impact, degree of innovation, and suitability. All files and documentation must be organized and named as specified in the "Submission Guidelines" attached. This information will be the primary data used in the selection of the NASA SOY, and will be electronically submitted to the NASA ICB.

Each NASA Center will evaluate entries from its associated activities.

Each NASA Center or Facility may select and submit a nominee. NASA Centers may submit additional nominees if the entry was initiated by a Facility under its cognizance (e.g., GSFC could submit one entry for its Greenbelt main campus and another from the Wallops Flight Facility and/or the Independent Verification and Validation Facility).

Deadlines

Each NASA Center will forward its top selection(s) to the ICB by COB May 14, 2012.

Judging

Entries will initially be reviewed by a panel comprised of software experts from the NASA Field Centers, Headquarters and the Inventions and Contributions Board. Nomination representative(s) will have the opportunity to make a short presentation at NASA Headquarters on the morning of June 20, 2012 or present via video/teleconference from another site. The exact schedule of presentations will be distributed after all nominations are received and qualified. An electronic copy of the final presentation, if any, should be provided to the NASA ICB by COB June 13, 2012. The ICB will recommend winner(s) to the competition sponsors for confirmation by the Administrator, under the auspices of the Space Act of 1958, as amended.

NASA officials will present the award at the NASA Project Management Challenge Conference in 2013 or another suitable event. Any clarification requests about competition criteria should be made through the ALO at the cognizant NASA Center (<http://icb.nasa.gov/alos.html>).

Submission Guidelines

Please submit all files electronically in the fewest number of zipped master files possible. The master files should be named "**(CenterID) (Nominee Acronym) SOY Nom (#)**" (e.g., "GRC LEWICE SOY Nom 1"). These master files should contain the following sixteen types of files, named as indicated:

1. The following are required files:
 - a. “(CenterID) (Nominee Acronym) 1329.pdf”, or
“(CenterID) (Nominee Acronym) 1329A.pdf” (if reevaluation)
 - b. “(CenterID) (Nominee Acronym) 1329 Section II.pdf”
 - c. “(CenterID) (Nominee Acronym) Summary Evaluation Document.pdf”
 - d. “(CenterID) (Nominee Acronym) NPR 7150.2 Software Classification.pdf”
 - e. “(CenterID) (Nominee Acronym) NASA Std. 8739.8 Safety Criticality.pdf”
 - f. “(CenterID) (Nominee Acronym) NPR 2210 Release Status.pdf”
 - g. “(CenterID) (Nominee Acronym) NPR 7150.2 Software Compliance Matrix.pdf”
 - h. “(CenterID) (Nominee Acronym) NASA Std. 8719.13 Safety Compliance Matrix.pdf”
 - i. “(CenterID) (Nominee Acronym) Information Security Compliance.pdf”
 - j. “(CenterID) (Nominee Acronym) 508 Compliance.pdf”
2. “(CenterID) (Nominee Acronym)(awardee last name) Release” for each ICB Award Release.
3. “(CenterID) (Nominee Acronym) Reference Letters” and a unique identifier for up to 10 letters of recommendation/reference.
4. “(CenterID) (Nominee Acronym) Technical Publications” and a unique identifier for each technical publication, conference publication, and multimedia file.
5. “(CenterID) (Nominee Acronym) General Publications” and a unique identifier for each press release and general publication article.
6. “(CenterID) (Nominee Acronym) Project Documentation” and a unique identifier for each article of project-related documentation (e.g., user manuals, management plans, development documents).
7. “(CenterID) (Nominee Acronym) Web Links” file containing project website links.

Items in 1 and 2 above are required for each nomination; all other naming conventions should be used, where applicable, to document the software’s impact, innovation, and suitability to the NASA Inventions and Contributions Board. Submitted PDF’s should have selectable text if at all possible.

Table A: Nomination Documentation

File Type	Preferred Format	Alternate Format
Documents	Text selectable Portable Document Format (.pdf)	Microsoft Word (.doc, .docx)
Graphics	JPEG Image File (.jpg)	Portable Network Graphic (.png)
Spreadsheets	Microsoft Excel (.xls, .xlsx)	
Presentations	Microsoft PowerPoint (.ppt, .pptx)	
Audio	MP3 Audio File (.mp3)	
Video	Windows Media Video (.wmv)	Apple QuickTime Movie (.mov) or MPEG-4 Video File (.mp4)
World Wide Web	HyperText Markup Language (.htm, .html)	

All audio, video, and executable files, including video embedded in presentations, must be compatible with both Windows and Macintosh platforms. Documents, files, and handouts that include Sensitive But Unclassified (SBU) or International Traffic in Arms Regulations (ITAR) information should be avoided. Source code files should not be submitted.